

## **What is claimed is:**

**[Claim 1]** 1. An assembly, comprising:

two earpieces for receiving audio signals, said earpieces are adapted for positioning over the wearer's ears;  
an antenna module comprising a ceramic patch antenna, and a low noise amplifier circuit, said antenna module being designed to operate in the frequency band of 2320 to 2345 MHz, said patch antenna being connected to the said low noise amplifier input;  
a headband structure housing the said antenna module and interconnecting said earpieces, said headband and said antenna module together form a single piece integrally formed structure;  
a cable assembly comprising two audio cables, an audio connector, a radio frequency cable, and a radio frequency connector, one end of each said audio cable being connected to each said earpiece, the other end of each said audio cable being connected to the said audio connector, one end of the said radio frequency cable is connected to the said patch antenna module, the other end of said radio frequency cable is connected to the said radio frequency connector.

**[Claim 2]**

2. The assembly of claim 1 where the said antenna module is attached to the top of the headband through mounting means.

**[Claim 3]**

3. An assembly, comprising:

two earpieces for receiving audio signals, said earpieces are adapted for positioning over the wearer's ears;  
an antenna module comprising a quadrifilar antenna and a low noise amplifier circuit, said antenna module is designed to operate in the frequency band of 2320 to 2345 MHz, said quadrifilar antenna being connected to the said low noise amplifier input;

a headband structure interconnecting said earpieces, said headband and said antenna module together form a single piece integrally formed structure;  
a cable assembly comprising two audio cables, an audio connector, a radio frequency cable, and a radio frequency connector, one end of each said audio cable being connected to each said earpiece, the other end of each said audio cable being connected to the said audio connector, one end of the said radio frequency cable is connected to the said quadrifilar antenna module, the other end of said radio frequency cable is connected to the said radio frequency connector.

**[Claim 4]**

4. The assembly of claim 3 where the antenna module is attached to the headband through mounting means.